

Sound picked up by a microphone of a first sound field is reproduced by a speaker of a second sound field, and a sound picked up by a microphone of the second sound field is reproduced by the speaker of the first sound field. Sound pressure detection section detects a sound pressure of a sound present in the second (or first) sound field picked up by the microphone of the second (or first) sound field, other than a sound reproduced by the speaker of the first (or second) sound field. Other sound pressure detection section detects a sound pressure with which the sound picked up by the microphone of the second (or first) sound field and reproduced by the speaker of the first (or second) sound field is picked up by the microphone of the first (or second) sound field. Sound-pressure-difference detection section adjusts a gain of an automatic gain adjustment section in such a manner that the two detected sound pressures assume a predetermined relationship. Thus, any sound picked up in one of the first and second sound fields can be reproduced in the other sound field with an enhanced sense of unity and connection between the two sound fields.